Rec May 26
Ans same day

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. March 23d 1878

My dear Dr Engelmann.

The box of cuttings for you
referred to in the enclosed card
I have sent off to day without
opening. In their intended for
me have in a good, fresh
condition. I enclose some
seedlings raised from your
seed of Cotton integrifolia.

Either the person who collected
the seed made a mistake
or
in this is a variety of the ordinary

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cattle. which has not been

observed as yet / improved.

But I push at the first

suppression is cured, as in

two large pots of seedlings

I have noted a single one

with entire leaves.

Believe me a most grateful

debtor for all sorts of plants

sent the Earliest Spring I

remember.

Always faithfully yours,

C. S. Sargent.

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Do you know anything about
the boreal bats of Cinyra
maleracapsa? They ought
to be looked at.

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Rec April 15
A — 16

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. April 12 187 8

My dear Dr Engelmann,

What does you botanum or you observation show to be the western limit of Pinus. sabiniana? Have we have no specimen from west of the Mississippi, or do Sprucei is mentioned in any of the lists or Catalogues of the plants of the trans-Mississippi States. But some of my western correspondents. Attach note me. for saying that it does not cross the Mississippi. & they say that it is common in Nebraska & even in western Kansas along the banks of streams. I shall expect to

in Iowa & Minnesota. Specially

in Missouri. but in further west

I will now go with any of these States

as there have the remains here.

as the range of the plants, especially

of the trees, is an interesting and

important one. Before I receive your

of the 26th inst. I had learnt from

Le Cayx. that one what I owed

to him in the way of Thalictrum

what I was not much in the way of

one species. I am watching for early

Celtis with much interest. as if the

leaves later leaves become entire. a good

deal of astonishment will be raised

with the botanist - Still I quite agree

with you that I don't know enough about

the trees. but how one can do more than

try to learn. what I do not consider.

I owe a few seeds of Sciadopitys to you

Mo. Bot. Gard.

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PAPERS

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Rec'd April 24
Ans same Day

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. April 21 1876.

My dear Dr Engelmann,

Thanks for your information about
P. serotina. I know the Texas
specimen labelled as you have
noticed; but with that exception there
is nothing in the herb. department of
Fraxinaceæ. Ill. (Bebb). The best
is undoubtedly poor in this. Did Dr
Gray tell you, in Dickens Lex to U. Thro.
that we have no good flowering
specimens, & indeed have of any part
of Cong. *Salicaceæ*; & nothing but
buds of *C. stenophyllus*!

I share with you the most interesting
of the specimens referred to in the

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Enclosed: What do you think of C.
micrompa ? Also blanc[illegible] note.
particularly. No 2. The stellate
pubescence is very different. but
I cannot for what they allow in
this neighborhood. Now. can I have
asked Commons to look at other hers.
and see if it is established. Must
let you know when his letter comes.
Look. too. at No 7. How always taken
this tree. with its unusual ch[illegible]
look to be alba. Let I don't see any
difference between the two of it & No. 6
that what I have in pumice. Perhaps
I can rather ~~can't~~ the attention at not
finding better characters. in the base of
alba & tomentosa. The legs seem the brightest
thing. and the legs of terminal buds. so likewise
in the vigor of growth of the plant: so not to.

Enclosed to Prof. C. S. Sargent
Jan. 7 1889.

Acc May 13
Ans same day

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. May 9 1878.

My dear Dr. Engelmann.

I am really very much obliged for the Elm seed. Yet germinates for shall have the seedlings as you desire. The buds of C. alba from Cambridge are the largest tree. in the town, the plant from which I sent you buds. & you say this spring. was probably the tree. for which you collected the specimen. & 1876. & I have never known any other large & the garden. The enclosed leaf shows this tree that it is alba. (of course not the character). although some of the trees

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of alba at Brooklin has since more heavily "white margins" than this. The characters go over to the young leaves of alba & Korean hybrids just as they do in the plants of the two species growing side by side & under exactly similar conditions. To say nothing of the pubescence in the old plant (last genus) of Communis alba. Some of the plants in this neighborhood show anything like so much. Cont.

Has Eggert got us plants of Evigeria. Check is out in the garden? Instructions are down early & must be got before the leaves disappear.

Sincerely C. S. Sargent

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By mail.

Rec June 13
" 14

1 Microsperma
2. Algonquina.
3. Longicin. glaucum Colorado.
4. " "
5. Stichensis.

BOTANIC GARDEN,
HARVARD UNIVERSITY,
Cambridge, Mass. June 10 1878.

My dear Dr Engelmann.

I cant help yr much about
Abies microsperma. I have
never seen an old plant of it or even
any but my own. This is you know
is very small. There is no specimen
in herb. nor is there of A. Algonquina.
nor
nor, by the way, of yr from Yukon
of A. Lasiocarpa. I know only
know whether my plant is rightly
named. It came from some European
nursery. which is rather good proof
that it is not right. for when they
send out a plant with the right
name it is the exception when it comes



the rule that such leaves are
habitually incised rather than
ignorance is something worse.
As you know last year's leaves
this plant were ◇. Are those
of this year begin to appear ⇒ ◇
like? Is this because they
are younger. and will they thicken
up into ○ as the season goes
on? This we must watch +
see. Note that on this plant
the leaves have ovate obtuse
shelves. but not very numerous
in either case. In Alcyonium
they are very numerous close
(of course) and more below.

Judging by the leaves alone. this
can hardly be referred to the same
species as my A. microphyllum.
to A. longifolium L. Colmeiro.

the Stomata are on both sides
again: but more abundant above
than below. The leaves I enclose
show Stomata (2 thick) on both
sides but more above than below.

While those of A. Clarkei have some
below. but very numerous
above. On a plant I got some
years ago from Linden & sent
under the name of A. Hutchinsii
the Stomata are very numerous
above. and few below. May this
be the true A. longifolium. Those



but a single plant of A. abrupiana about six feet high and never have raised any seedlings - In my plant I can find no square stem, or any attempt for stem cut.

If Hooker includes a Persoons have an imperfect description. It must be in the Prairie as no body has the Rocky but plants. Hail from me. I think I know of a plant in Dwight State & have written for a specimen. If I get it will send it. In regard to my other Agave flowering. Then yes. Yucca we grow he grow very well. but not so Virginia that does nothing. I shall like more of them much. I seed. I have seen flowers of E. Edwardsii Buttalii in you and in flower. & first rate garden annual. I enclose a few seeds of A. Zapotensis? Send me in Japan. Faithfully. C. S. Sargent

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Rec'd 21 Aug

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. August 16 1878.

My dear Dr Engelmann,

Perhaps this will find you at home again - I hope not. If it is hot and disagreeable in St Louis to day as it is here. and then there is Yellow Fever. which may give a wide berth to - At any rate if you are not at home. this will not well enough. I enclose here my P. microsperma ? that you may see that the compressed lines of the early summer are taking the ◈ shape of those of last year growth. What is this tree ? You ought to have guessed at by this time. You say that the base of the leaves in longitudinal sheets underside of of P. hispidum. are twisted.

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are they as per Enclosed? I shall see
a if twisted very little.
It. " You say " they do you say that
'of course' the stomata of Abronyum
are numerous alone. They are
almost always more on lower side"
are they? In I shall see the twisted
at base I call the common side
of the leaf the lower & the white side
showing the mid-rib the ventral
Right.? I expect in Sept to start
for Nevada. Hope to see you either going
or coming. I expect to be about two
weeks in the hills 50 miles South
of Eureka. I shall expect to find
there P. monophylla. & you. Do Utah
& the western Juniper. & perhaps A.
Sabulicum. if I get big Enough. What
else can I look for? I expect to make
a short run in California. What can
I do for you? Any suggestions or advice will
be gratefully received by Yours faithfully C.S.S.

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Rec'd Nov 6 78
Ans Nov 8 78

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Nov 3rd 1878

My dear Dr Engelmann.

Here are some seedling Sciadopitys.

Showing but two cotyledons. (all the

seedlings are the same.) which I send

(They are for the end you thought would not germinate)

thinking you may not have seen them.

This differs as other trees from

placing this plant near Sequoia.

Pinaceae. Does not seem to have

Murray

this character. As did Murray

the only Pinaceae I remember who has

seen fruit of Sciadopitys. But

the knew of some one who has considered

the leaves morphologically. as you tell

me so. I shall be obliged for

the reference & notice what I take to be

F. Mohl 201 Jahrg Jan 1838

(last the word)
(not the word)
(not the word)
(not

Sonatae, this time on the under side.

Strong back from. Nevada. Excellent

specimen of Pinus aristata. P

Echulin. P. flexis + Jeffreyi.

Californian. Var Washoensis. the only

Conifers Ground by Central Nevada.

any of there are very much at your service.

The two latter are very common on

but I found only a few plants of

P. aristata. on Prospect Mt. Eureka.

growing on the North West side of the Mt

by 7,500 ft alt. up to the very summit

& overbent. This tree was once quite

common on this Mt. but nearly all

have been cut. the timber being the

best Central Nevada. available for props

for the mines. This tree is known

as the "Fox-tail Pine" by the neighborhood.

but many persons in Eureka. Storke tail

be a Spruce. that it. at a little distance
it gently resembles. may to strickly
by unusual habit. the last that it
holds it for some months. like the
Spruces. The trees I saw were from
15 to 30 feet high. sometimes forking
from the base. but generally with perfectly
straight stems. the largest of which
were 2 feet through 3 feet from the
ground. My notes say "Bark roughish,
in the young trees smooth, on the rest
thickly furrowed & scaly — bark of the
branches white smooth. twigs with
the black scars of the fallen leaves —
Cones sometimes in pairs. more often
single" — The seeds had all
dropped from the cones on the 21st of
September. Mount Ernest & there
has no P. glauca. but further South



in the Rocky Mts. that it can
compare. & seems into Pinus Lambertiana.
This is the tree that forms the same
to the White Pine Range. White Pine
that is in Kansas. The Jeffrey
makes fair fuel. but the Red Pine
is inferior. & the latter is made
to chiefly into charcoal. of which
Kansas annually use used in the mines
&c. being too Aphanic. Both P. brevifolia
& monophylla. are decidedly worth cultivating.
The former has a sort of a tufted
Californian sort of look. is certainly
very distinct in aftermaths from any
Pine I have ever seen. I enclose with some
for Apennine pulchella. & for have it growing
I think it much admired for which it is.
I am glad I have at last succeeded to see that
for first Pinus contorta. among the deciduous.
but I must run along. I am among this tree
in the Sierras for several days. during the first week of

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R Nov 4
Ans 15

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Nov 11 1878

Dear Dr Engelmann,

I am very sorry to learn from yours of the 8th that you are sick. I fear it must be serious if it has kept you in bed for two weeks. I hope you may be excepted. I will see in the future that you get seedlings of all the conifers we raise. I fear that none we have raised to the genera you ask for. Young enough to be of any service. Strasburger is in the College Library. & Mr Watson has looked it through & taken no the enclosed his only reference to the subject you refer to.

I don't understand about your aborteus P. aristata. I send you one of my cones. which is aborted. but the awns are not as long as in Colorado the awns. The awns in the young cones and even in the yearling cones are much more proportionately developed. It struck me when that they

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do not grow proportionately with the cones. so that they must get knocked off from the mature cones. When I did notice a single specimen of P. ponderosa contorta in the Sierras. with two cones. the others I sent you. showing that it is not serotinous. The cone has open Sept 30th. I am sure that all had shed their seed at that date: as I saw in the sharp look out for seed. This is a miserably named tree. as it is most surely contorta. generally growing as a perfectly ~~symetrical~~ symmetrical pyramid. with all the outline of a Scotch Larch. hence the common name of Tamarack. I don't know why you call P. ponderosa ~~rare~~ common in California.. At 7.- 8.000 ft alt. it is very common in the Sierras. where it is a much larger and finer tree than in Nevada.

Hoping to hear soon that you are entirely restored to your usual health.

Yours. Faithfully. yours. C. S. Sargent.

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Rec'd Nov 25
Ans — 26

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Nov 20th 1876.

Dear Dr Engelmann,

I am very glad to learn from your
of 15th "
but that you are better.
but don't get well too fast and
so exposing yourself. Get a relapse.
I send you the Senna Hemsley. P.
Contorta. Take half of it to go with
you come. Send back the rest at
your convenience. I send a list of the
trees of the Sierra. Shewing the bark
which is unequally thin for a Pine.
Every specimen for any Sierra tree
seen. Can not P. Balfouriana. be
Lettie referred to P. muricata. Then
is P. Contorta? Is there Balfouriana
plant. that Contorta look more
like that I sent as P. muricata. Any

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be, then like *P. contorta*. Let me know as the cones of *P. muricata* in Lake I if you can spare one. Very much at. It seems very improbable that an alpine species like *P. contorta* shows grow at the Elevation of the town. Except Lobatus at the far north. If you had only seen that you were in doubt about any of these things. (I wish I understood what you wanted me to look for.) I have brought you cones of the cones. but the two ~~It~~ I travelled in California has the same Jeffrey & Monterey pine you sent last year. and also Bolander Brewer. and California Botanists have done most of their work. In spite of all this there is not a single Jeffrey a species of *P. contorta* from any part of the Sierra Nevada.

GARDEN PAPERS
MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN



Rec Dec 6th

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Dec 3rd 1878.

Dear Dr Engelmann.

Here are the leaves of *Pinus flexilis* for Central Nevada. altho' I dont think there can be any doubt about the species.

Have not your Botany of Simpson. Exploration. Have you those copies? If so I should like to see it.

Dont send back anything I have sent. but a part of the *P. contorta* shoots.

With kindly.

C. S. Sargent —

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Rec Dec 9th
Ans 10th

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. DEC 5 1878

Dear Dr Engelmann.

I must say I dont understand your trouble with some of *P. contorta* + *P. murrayana*. The latter are always a third or more longer and with thicker ends to the scales. Otherwise the same. It certainly exists in *Contorta*. But not constantly if you consider the Colorado, & Mt Count & Sierra plants to me. I saw in the museum here a bunch of *Contorta* from Oregon. by A. Murphy. 1875. Showing the cones of 4 years persisting. but not serotinous. and not at all common. Lyalls Vancouver Island Specimen is long cowned. There is a

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a Specimen for Kellogg. without locality.
Short leaves. small cones. and with
very short awns. Begelow (in Whipple
Ex.) the same from California in cones,
in in Nuttall. With specimens of your
own latifolia. that I buy the way seem
identical with my Sierra plant.
Mrs Hines
Then is a Specimen from Mrs Hines.
Plumas Co. with finely long cones. short
but very long awned. longer than
any I have ever seen in P. Ponderosa.
Some of these specimens show that
this plant is at all seasons
to be resinous. more but the
fact, show that the cones burst
the Columns. therein we to
pon. to draw any Conclusions from.

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Evidently of three distinct species
Specimen Lens it is a very polymorphous: But as far as I can I keep the colonies true. of which I have
hand the seeds from Bonnier.

Of my plant in a hybrid. what are its parents? Certainly Aristata in
part as of them. & it grows as where
in that neighborhood. I don't find
Chrysanthemum Bolandieri = Certainly
but you have the specimen before
Jr. We have Bolandieri. Bolandieri
but I sent specimens to my form
form of Coronata. Don't forget
about the specimen of Mexicanus please
What do you say to the enclosed?
It comes from Multnomah Co., Oregon
Should be. A. Gunderi. Have we at

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but the true question is, as to
L. what Douglas meant by Lambda?
I thought at first of Lobelia. but
the leaves seem very long. besides.
Wrights fructus to know. Lobelia
runs to what I call scarlet.

Shall write for your specimen
full information. but in the mean
time tell me what you guess is.
I believe now that I have picked up all
the botanical publications except Simpsons
Plant of which I sent the other day.

"Prodromus de Anthodyce". what is Lindleys
is hopeless.. Plants of the Upper Missouri
and Yellow Stone plants of Illinois & Missouri.
If you have collections of any of these to share
with let me have them I shall be greatly
obliged - Many thanks for the seeds.
I miss the plants you sent during my
absence all right on my return. Many
thanks. Yours truly. C. S. Sargent

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Rec'd Dec 21
Ans Jan 2/

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Dec 17 ..... 1878.

Asa Gray Chas. E. Sargent

Fm. Silliman's Journal. (no date)

Art XIII. Catalogue of a collection of plants made in Illinois and Missouri by Charles A. Geyer, with Critical remarks by George Engelmann, M.D. of St Louis.

Ex

Go down the line. Then Dr Engelmann. "But here is a little dealing from Beyer of A. rubella for Jr. with the cotyledons still on. It is a little withered. as it has been "laying round" for a two or three days. while I have delayed writing. The seem of A. marginata to the same locality I shall have soon. will send Jr the young plants. Juglans Nigra does not seem to know. or at least he has not sent it yet. By all means

and the rest ones of the Columnea
Contorta. The experiment with the seeds
will be a most interesting one. If you
keep off the ones for the bunch. before
sending, each one should be shaken.
and Seeds have the seeds of Each
flower come planted identically. and
sent to the result. We have nothing
but young plants of P. Buntsiana.
Shall send some out of young buds.
but judging by the Glumacea Imce
have in trying to get out the seeds
for the ones of this she can Imagining.
to believe that they must close
until the Crack of Noon. Imust
confess that I cant understand from
your letter. whether my Rostrata but
this is P. Amistada. or P. Balfouriana.
Shall a good specimen of the bark.
of your rare tree. from the tree growing
near the one from which I took your
one flower. Just so we can tell what

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Rec Jan 31st
Ans March 4

BOTANIC GARDEN,

HARVARD UNIVERSITY,

Cambridge, Mass. Jan 28 1879

My dear Dr Engelmann,

Many thanks for your letter of the 28th inst. but you dont tell us what we want to hear even more than your information about Onions, namely, how your Son is getting on. Stephens. Lowell. & you found time for a long letter. that he is better. I have not written you on that subject. not for want of any

sympathy for you., but because.
I know., that, under such
circumstances, the world
of letters. however. such
interference. are more a
bore than a pleasure. then
I know you have your hands
too full. to read even what
you must contend to say
to you. When you have come
into contact with me upon

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I just agree in your remarks
about Junipers attenuata.
Botanists do not see plants
enough to allow them to judge
of their varied habits. The
American Flora of the Jesuits
seems to be your most satisfactory
reference; and thanks to your
patron. shall have my constant
companion at the west. I
must be satisfied with making
out the Juniperus Sabina
& cupressus. The seedlings which
I sent you as J. virginiana. came

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from Dijon. I sent seeds
sent to Nelson by Howell.
They came from the same locality
as the seedling grapes. I
sent you. I have already sent
to Thurber & all the Conifers
of that neighborhood. If the
two trees grow together & ever
be very likely to make mistakes
in collecting the mixed seedlings.
Belong that you are well
& that your Smith letter

Yours faithfully.
C. S. Sargent.

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Rec Febr 5th 1879
Ans March 4th

February 2d.

Dear Dr Engelmann.

Do you know that the young cones of Pinus Strobus are, at this season, not reflexed as they are at maturity but boldly upright? When do they make the change; or rather begin to make it. In Sculpture it is a gradual one.; cones in their usual form long before the last third the stalks are yet strong enough to support

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the hairy nature ones.

In looking yesterday at a white

pine. I took occasion to examine

several trees of P. virginiana. on

one of which. only a few were on

single short ones. All were often

tall and green. This proves that

the autumn changes in

the shrubs is by no means general.

a constant. I should like to know

when it shows its cones. in those

cases where the cones open during

the autumn. in what they come

to maturity. Have both the black

& white pines shed their cones

in September. or are some of the

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Cones mature. If the same species is sometimes stoloniferous sometimes not it seems to be the case with P. rigida. & P. Catesbæi. what is the reason for this anomalous behaviour?. What does one pine gain over the other by producing its seeds. In one case in some years. & if there is an advantage to the tree ~~X~~ in making this energy & seed at sufficient times & seasons. why do not all Pines have the same power. may not ~~does~~ the evolution theory

Come in some bearing & seed

n climate? But I started to
give for a hint about the B. P. Comm.
of Spain I have written a long
letter, which may forgive
for this.

C. S. Sargent

Dr George Engelmann
St Louis.

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Rec March 14
Ans " 29 Apr 1 (23)

Botanic Garden of Harvard University,

Cambridge, Mass. March 11 1879

My dear Dr Engelmann,

Return Lemmon's letter about rather confuses me than otherwise especially as to Pinus ponderosa. Perhaps with the specimen before you you can make head or tail of what he means.

Found you to day a young seedling of Sarracenia Drummondii, but unfortunately the catkydons had dropped before I went to get it from you. The germination is the same as in Encephalartos

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of fruit I also send a letter

the same. The cotyledons in the

Cucurbitaceae are developed under

ground. and that of which this

enclosed in the hard seed. as

is the case in all Palms and

Cycadaceae. what I have seen

germinate. But I have not noticed

it in any other instance nor the

comparable thickness of the

radicle. the object which in this

case I don't understand.

The germinating Pine enclosed

has sent to me for you Pinus

Edulis.

I found it will be necessary for
me to form a Special Herbarium
for the Arnold Arboretum. what
I do know is situated 6 miles
from that at Cambridge. and too
far for reference. I propose to
continue it (for many years at any
rate) to these students of N. North
America. 2ly the whole temperate
Zone. I shall keep it in my
(at my house)
own house for the present. an
entire proper accommodation
at the Arboretum can be provided
for it. My Herbarium. Congs. Sem
&c &c. I must have an
immediate accumulation and working

useless duplicates. Some of these
I hope you will consent to make
over me. on some terms or other.
If you could employ Egypt or
some one else. to make packing.
I should be only too glad to pay
for the work. I propose to employ
Egypt to package Letterman to
make collections of Jesup western
Jars & skins for me. and shall be
glad of any suggestions for are willing
to make. in this subject. I propose
to employ. in addition to the help
in Anthropological Museum. but the
labor & the Charges of such an undertaking
rather appal me.

faithfully yours,

L. S. Sargent

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Rec'd April 9 14 (23)

Botanic Garden of Harvard University,

Cambridge, Mass. April 6th 1879

My dear Dr Engelmann.

Thanks for the grape cuts. I believe we have plants of all three cuts already growing. Probably you send that you have sent it different times. I am glad, however, to get this fresh supply. This I will have planted at once. I have also

the Contorta cones. If they contain good seed there shall be carefully planted and the results noticed. It seems hard to believe that Jour cones belong to the same species, which I saw on the Sierra Nevada. Jours are all unequally globular at the base. as in the cones of P. Ponderosa. From this known natural variety of the Sierra Cones. Let Jour have my only theories. &c.

You can decide this. The ones, too, in the Colorado River are much shorter than Stanton and more blunt than I remember to have seen them in California. I wish you could see those Sierra Juan journey!

Palmer has turned up here at last with an immense quantity of seeds, Indian, among them many Opuntias & other Cactaceae. Can you name them from the seeds? If they could

he named the 2nd under he outlig
more valuable for distribution among
Eastern Gardens. Can I send you samples
yet for this purpose?

Glad to hear your son is better!
Hope you both well also!

Faithfully,

C. S. Sargent.

Do you hesitate to call Pseudotsuga
a genus?

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Rec'd May 2?
Ans — 3?

Botanic Garden of Harvard University,

Cambridge, Mass. April 29 1879

My dear Dr Engelmann.

Many thanks for your & the Lyon & the Simpson Rubus. both of which I am glad to get.

I am sure there is no hope in the Sagittaria Comm. but I will plant them. Rubus seeds. I am not glad

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of the U. S. Statesmen and, what I have been unable heretofore to get hold of - Where does this particular seed come from? But the reason! It seems too bad to have Congress out in the cold. The present generation at least, will always associate this tree with him;
and this alone seems to be one of the few cases where Congress might

he worked. I have had no time
to even look at any of the specimens
you sent. Hope you will go to Europe!
It will do you good.
I for the work the summer. I shall
be satisfied with what satisfies you.
Letterman
I should like Leggett to make me a
duplicate set. If there should
I have the book and sheets also,
if possible. Be sure for the main stem
rather than from a branch.
(Rev) Faithfully yours, C. S. S.

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Hooker writes of a letter sent you by him. written by J. Sprue. that Comitum. Can you pass it along this way?

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Rec'd May 19th 1879 answ'd

Botanic Garden of Harvard University,

Cambridge, Mass May 15th 1879.

My dear Dr Engelmann,

Many thanks for the chance you have given me to read the interesting correspondence - of which I have taken the liberty of retaining a copy. I think you have "got them" as the boys say. You are perfectly right; it depends entirely on the very hard, & generally true nut most

investigations. I should like Letterman
to say as close to make for me a
complete set (flower + fruit) of his
specimens of the lignous plants of
Ino. For such a set, if stated. with
the localities given. I am willing to
pay the market price. about in for
8 – 10 cts per specimen. I dont care
especially for wood sections just
yet. as I dont want to undertake too
much at once. but when you tell me
that Letterman is going to make a

set for you. I thought that he could
furnish a second set at very little
additional cost, and that the saving
between the two would make the work
less objectionable for us both. But I am
not particular. so on this point must
but let this is for you to
now give any fixed order, - but the less
the amount [illegible] my
thanks for the Wheeler effort -
I should like much to see your P. arizonica.
but I confess there are but few species
You sentence reads a little as may
that it affirms that the lowest part
of the cone of P. pendula remains



in the ~~from~~ bunch. and that entire
Comes he never picked up.
Surely this must be an Error; but
if Jem not all not there are
hundreds of millions of entire
pumpkins comes laying all over
the fields. Certainly there were
brought home with us. picked from
the ground the entire. At last Jem
to go to the Alleghenies. with Frey
& Conboy. in June. do we should have
a good time of it. they commissary
in stores? Pittsburg. C. S. S.

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Mrs Davenport Aug 12th

Botanic Garden of Harvard University,

Cambridge, Mass. August 5th 1879

My dear Dr Engelmann.

Here are two little seedlings
sent from the east of Alpine
Sitka Spruce. You sent it the Spring.
I should have sent them before
but I have been hoping that you
would have. Ere this, turned up
in these parts. I shall [illegible] me

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coming soon; that you are
not trying to work too hard
in this abominably hot weather
we are having!

Faithfully yours,

L. S. Sargent

Dr Geo. Engelmann

St Louis.

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GEORGE ENGELMANN PAPERS



Rec Oct 15

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., October 10 1879

My dear Dr Engelmann,

We got home a couple of days ago. When to my great regret I found your note of adieux. I should have hoped you would have lingered with the Summers till my return.

Since I have been gone I have looked assiduously, if not successfully among the oaks. On the Hudson I found only the single plant of Q. Muhlenbergii. that I shewed before. Quercus palustris is only found on the east bank (not on the west). only two or three specimens seen. There is no Q. Coccinea. there. or about Rochester as far as

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down the valley of the Genesee.

If this species is southern, as I think, in the Atlantic seaboard states as Minnesota, without intermediate stations its distribution presents a problem I leave you to work at. I had while at Geneseo the opportunity to examine for the first time L. macrocarpa. It grows there in the low rich bottom lands with L. bicolor, and also equally well in the upland with L. alba. The more common form these agrees well with Michaux's figure of L. obovalis. both in the fruit and in the narrow deeply lobed leaves. I send you an acorn of the two forms. The bark is very

unequalled. and on the old trees
easily distinguished. this bark from all
others. It is dark. and very deeply
furrowed. or ridged. Stalk a spear
of one of these ridges. for an old
fallen stem. It is three inches deep.
and rather more wide. The same
tree measured across the stump
[but 5 inches. and probably only
more. for on the tree had broken
near the stump. when it fell it
has difficult to measure accurately.
This will do away with the "middle
aged tree" of the manual. If this
peculiarity of bark is common to
the species. of Hales of course be
mentioned in the books. I saw a
piece of the stem of the former

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Hedysarum bak. about ten thirteen
many years ago by the carving in the
River bank. It was not a Macrocarpa.
* the bark showed & I suppose it must
have been a b. color.* It when it
grasped 32 but at the ground. &
may have been the largest specimen of
the species. In the immediate neigh-
borhood of the spot where the
tree grew are many other swamps
which oaks. yielding for 15 to 20
but. so that this species, too, must
be set down as of the 1st class.

Smilacina. Muhlenbergii. about 9
Antennifera abundant to form common
here. Stalked for in bare. Smilacina
Stellata about in the Burden abundant
herbarium. in one bottle communicate first

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Rec Oct 15th 1879

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., Oct 10 1879

trees grows sparingly in the valley of the Juneau. always on high, dry hill sides. and of very small size. It is evidently there on its northern limit. I only found one small plant fruiting.

I found a few trees of a very large fruited variety of Carya tomentosa growing in the low rich and overflowed bottom lands of the Juneau. I send you some of the nuts & a bud from same. Bring up if you want it. The nut is not only remarkable for its size. but for its excellent quality. and

and the thinness of its shell.

The trees are every one known

to us. and are called "King

Nuts", and as such are sold

in the market. I must remember

to find a hickory nut on the

and it should certainly be propagated.

I have sent to Bingham for

a good section of Juneus

Coccineus. Will you have me?

I send this letter via Shreve

Jun. Gregg's plants. so I shall

proceed to have Jn hand up

in good style.. But this letter

is already too long so good bye for

to day. Faithfully Jours,

C. S. Sargent.

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Rec Dec 3d
Ans same day

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., November 29 1879

My dear Dr Engelmann.

Several of your letters are before me unanswered, but I have been very busy of late. The truth is that I have undertaken to prepare for the next Census Report a volume on our Forests, in their commercial relations & Economic values. Sent to Washington after I agreed to write some of the Report, and since my return I have been busy organizing the various Divisions and first difficult inquiries that have to be made, in connection with this work. I am going to publish

at once a Catalogue of my Trees, with references to botanical descriptions and figures, geographical range, & I want at

(and how little I know what to do in general way!) Economic value and uses. My catalogue I shall distribute widely with the request that recipients will furnish me with any information about the uses of their neighborhoods they happen to know about. I take it this way to get a good deal of information about various points, which at present to me seem to know anything.

In this connection I am going to have the wood of all the institution I strength. hunt-going Yucatan ... In burning them

the ashes of Ohio. I understand in Lattermann ... I have whether I want

before then but I am waiting to hear from Washington & I must have the specimens pointed out & clear point matter. & Will write soon in this subject. however. by last advantage from the west is that it allows me to travel at present where I like. & that I shall have a splendid opportunity to see a good deal of the country. and make a good many observations & collections I hope. Shall we go to Bryan together next summer? Is it in L. Penn. at Rochester. I this year just the time my Early. now — the best is unmistakable. Today nothing of my Rochester Crops — what Strays unnoticed. especially in the thinness of the shell. Please look at it. I must go and but me a soon a possible for idea of what the crop is Penn is of L. Penn. and

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ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., ... *Nov 29* 1895

the range of *Pinus sylvestris* (we
must make that a swamp var. of
P. rigida. Now that the sylvestris char.
does not hold. Is *P. Contorta*) *P.*
Elliottii + *P. glabra*. also. the Scotch
western range of *Pinus alba*. What is
an Evergreen oak 20 – 30 but kept
in the San Francisco Lots. what?
Beyond talking about
planning! Not a year in the
past but tell you something about it!
Now I know nothing on the subject
& am glad to find any one who does.
The European Sumac for instance about
in this connection. is *R. Cotinus* of the

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of the Mediterranean Region.

By the way that we stay two weeks in the Pacific coast? Do all Sugars. have the tanning quality of the Hemlock.? How much there is to learn about our Trees. & one attempts!

Thanks to the information about P. Macmiana: What shall I say for P. Macmillana. I have long suspected as nothing but P. australis &. Lucii under for a bit tremuna. You had better perhaps for mine to occupy in this future about 100 quantum has work

to you very truly,

C. S. Sargent.

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Rec Dec 18'

ARBORETUM, HARVARD UNIVERSITY,

DIRECTOR'S OFFICE,

Brookline, Mass., Dec 15 1879.

My dear Dr Engelmann.

I am sorry to say that the postal
Card. on which you gave me the
names of two kinds of seeds.
you had sent. is lost. Now in
the Vitis & the other a Prunus.
Will you kindly send me the names
again if you remember them.

If you have still a copy
of a list of plants of the Alpes
Maritimes by you. I should like to
have it. As me seems to know
anything about this region there

published. There is no copy at
Cambridge. There is also the
two St Louis papers containing
a lecture by you on the Conifers
of the Rocky Mts. This you
never sent me. and if you have
still others I should like to
see them to my own almost
complete set of your botanical
papers.

Hope to hear from Letterman
before long.

Faithfully,

C. S. Sargent.

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Nothing from Letterman yet.

ARBORETUM, HARVARD UNIVERSITY,

Rec Dec 22
Ans — 23

DIRECTOR'S OFFICE,

Vol XII p 772

Brookline, Mass., Dec 18 1879

Dear Dr Engelmann.

Thanks for your letter & suggestion of the 15th. To begin with one of your ?. I should like to know what is the latest you are doing with Isoëtes. at this season of the year.; and why you do not make careful of journey. ? It has been in summer. I should guess that you were after a hybrid tank or blacking. but then you would not mean at this season of the year. You have seen

Dr. Asa Gray Harvard U. C. Sharples Esq. Newton Corner Mass. & Europe

by this time that I should
in the Gardeners Chronicle all about
Lr Charles Skewes. I have
long ago written Bolle to the same
effect. If you have returned
through Zurich you must publish
the Heuer: as you have been
better opportunities to study it
than any one else. I have just
written it in my Catalogue as
"incd." I am hard at work
on the Catalogue but have got
to bake ready. I fear I shall soon begin to envy
you your positions than you will

to answer. he sent Jim
Jet to call in the printer boys.
I must go to Washington.
he is the boy. when I think
I surely of going to St Louis
to discuss Journal matters
with Jr., or Letterman &c. &
engage with him either for
my & Summers work. The
will be more satisfactory than
writing. From St Louis I am
prepared to go either to
San Antonio Texas. or may
be Jacksonville & Orlando Fla &
Nashville Florida. &c & Augusta

temperature South. that you will go with
me. perhaps Dear Lizzie come
again by the middle of February.
What do you say. will you
go or no. Quercus Emoryi
or Texana? If Dear
Lizzie will accompany Mr Schneck
to Texas & St Louis before
the 10th of January. but when we
are absent on a Washington
hunt etc in order to make
plans.
Love putting Cactus integrifolia
with C. Muricatus &c. C
Cereus pallidus. with C. Californicus. with
a short note calling attention to the importance
of studying this genus in situ. Yours etc.

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N.° 2036.

Smithsonian Institution
Washington D.C.

For Sale,

A collection of the birds of California, made chiefly at San Francisco, and mounted on the spot from fresh specimens. It embraces about 170 species and 280 birds, all mounted except a very few, all in excellent condition and good attitudes, requiring only a little adjusting of the feathers to remedy the derangement of packing.

This collection is very complete in the rarer birds of California, especially in the larger raptores, and all the water birds. Many of these are scarcely represented or not at all in any other collection in the country. The few deficiencies consist chiefly in the commoner land birds of California, which can without difficulty be obtained. Among the more noteworthy birds are the Peregrine Falcon of the Farallones, the California Golden Eagle 39; Harris Buzzard (40); the Blue Backed Hawk (16); the Squirrel Hawk (32); the Chaparral Cock (68); Cassin's Flycatcher (127); Maximilean Jay (431); Townsends surf bird (511); Bachmans Oystercatcher (513); the Wandering Tatler (541); the Black Rail (556); the Brown Tree Duck (575); the Rocky Mountain Gannet (594); the Black Stormy Petrel (643); the Western Plover, 509; Cassins Guillemot (724); and many others equally rare.

The following is a detailed list of the species, in a series of numbers referring to the Catalogue of North American Birds published by the Smithsonian Institution.

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5	156	364	516	587
6	159	366	517	588
13	161	375	518	589
16	165	381	520	590
17	170	386	521	591
24	184	388	523	592
26	195	394	524	593
30	203	396	525	594
32	213	402	530	595
35	225	403	532	601
38	227	407	534	602
39	231	416	535	609
43	234	418	537	612
47	250	431	539	613
48	256	433	542	616
51	267	435	543	620
52	274	437	546	626
59	278	445	547	627
68	279	451	549	643
75	282	459	551	662
77	287	473	552	666
78	291	474	556	670
90	295	479	559	701
95	298	486a	561a	704
98	302	487	563	705
105	308	492	568	706
113	313	495	575	707
117	314	500	576	709
126	316	504	578	712
127	317	505	579	717
131	334	507	582	724
136	344	510	583	727
138	346	511	584	730
150	352	513	585	732
155				

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